

What Is Claimed Is:

1. A method for generating an image of a sequence of characters, comprising the steps of:

5 retrieving glyphs from a font which correspond to characters in a string of characters;

determining whether the font contains a predetermined data table that pertains to the layout of glyphs;

automatically synthesizing said data table, based upon data contained in the font, if the font is determined not to contain said data table;

10 laying out the glyphs in a line, in accordance with the data in said table; and

generating an image of the laid-out line of glyphs.

2. The method of claim 1 wherein said generating step includes displaying the line of glyphs on a display device.

15 3. The method of claim 1 wherein said generating step includes printing the line of glyphs in a document.

4. The method of claim 1 further including the step of storing the synthesized data table in a persistent annex file that is associated with, but separate from, the font.

20 5. The method of claim 1 further including the step of determining whether said data table is stored in an annex file associated with the font, and wherein said automatic synthesis step is carried out only if the table is not contained in either the font or the annex file.

6. The method of claim 1 wherein the step of automatically synthesizing said data table comprises the steps of:

building a font map that contains information about individual glyphs in the font;

5 determining relationships between items of information in the font map; and

constructing a table which identifies said relationships.

7. The method of claim 6 wherein some of the information in said font map is specific to the font, and other information is generic to multiple fonts.

10 8. The method of claim 7 wherein the synthesized table contains font-specific information that is determined with reference to generic information.

9. The method of claim 1 wherein the step of automatically synthesizing said data table comprises the steps of retrieving data from the font and storing the retrieved data in a table having a predetermined data format.

15 10. The method of claim 1 further including the steps of determining whether said data table is of a first type or a second type when the data table is determined not to be present in the font; directly initiating said synthesizing step if said data table is of said first type; or, providing an indication that said data table is not present in the font if said data table is of said second type, and initiating said  
20 synthesizing step upon receipt of a request that is responsive to said indication.

11. A system for generating images of characters, comprising:  
a font subsystem which is responsive to identification of characters  
to access at least one font file to retrieve glyphs associated with the identified  
characters, and data tables that contain information about glyphs in the font; and  
5 a font table synthesizer which is responsive to the absence of a  
predetermined data table for creating and storing said table on the basis of data  
contained in the font file.
12. The system of claim 11 wherein said font subsystem determines  
whether a predetermined data table is contained in the font file, and causes said  
10 synthesizer to create said table when a determination is made that the table is not  
present in the font file.
13. The system of claim 11 wherein said font synthesizer stores said  
table in an annex file that is associated with, but separate from, the font file.
14. The system of claim 13 wherein said font subsystem determines  
15 whether a predetermined data table is contained in either the font file or the annex  
file, and causes said synthesizer to create said table when a determination is made  
that the table is not present in either the font file or the annex file.
15. The system of claim 12 wherein said font subsystem operates in a  
first mode to cause said synthesizer to automatically create the table in response to  
20 said determination, and in a second mode to provide an indication when a data  
table is determined not to be present and thereafter cause said synthesizer to create  
the table in response to a request that is responsive to said indication.

16. A method for automatically synthesizing a data table that contains information about glyphs in a font, comprising the steps of:

building a font map that contains information about individual glyphs in the font;

5 determining relationships between items of information in the font map; and

constructing a table which identifies said relationships.

17. The method of claim 16 wherein some of the information in said font map is specific to the font, and other information is generic to multiple fonts.

10 18. The method of claim 17 wherein the synthesized table contains font-specific information that is determined with reference to generic information.

19. A method for providing data that relates to the implementation of a font, comprising the steps of:

15 receiving a request for a data table that pertains to the implementation of a font;

determining whether the data table is present in a file containing the font; and

synthesizing said table from data contained in said file if the table is not present in the font file.

20 20. The method of claim 19 further including the step of storing the synthesized table in an annex file separate from said font file.

21. The method of claim 19 further including the steps of determining whether said data table is of a first type or a second type when the data table is determined not to be present in the font file; automatically initiating said synthesizing step if said data table is of said first type; or, providing an indication  
5 that said data table is not present in the font file if said data table is of said second type, and initiating said synthesizing step upon receipt of a request that is responsive to said indication.

22. The method of claim 19 wherein the step of synthesizing said data table comprises the steps of:  
10 building a font map that contains information about individual glyphs in the font;  
determining relationships between items of information in the font map; and  
constructing a table which identifies said relationships.

23. The method of claim 22 wherein some of the information in said  
15 font map is specific to the font, and other information is generic to multiple fonts.

24. The method of claim 23 wherein the synthesized table contains font-specific information that is determined with reference to generic information.

25. The method of claim 19 wherein the step of synthesizing said data  
20 table comprises the steps of retrieving data from the font and storing the retrieved data in a table having a predetermined data format.

26. A computer-readable medium containing a program which executes the steps of:

receiving a request for a data table that pertains to the implementation of a font;

5 determining whether the data table is present in a file containing the font; and

synthesizing said table from data contained in said file if the table is not present in the font file.

27. The computer-readable medium of claim 26, wherein said program  
10 executes the further step of storing the synthesized table in an annex file separate from said font file.

28. The computer-readable medium of claim 26, wherein said program  
executes the further step of determining whether said data table is of a first type or  
a second type when the data table is determined not to be present in the font file;  
15 automatically initiating said synthesizing step if said data table is of said first type;  
or, providing an indication that said data table is not present in the font file if said  
data table is of said second type, and initiating said synthesizing step upon receipt  
of a request that is responsive to said indication.

29. A computer-readable medium containing a program which executes  
20 the steps of:

building a font map that contains information about individual glyphs in a font;

determining relationships between items of information in the font map; and

25 constructing a table which identifies said relationships.

31. The computer-readable medium of claim 30, wherein the  
5 synthesized table contains font-specific information that is determined with  
reference to generic information.